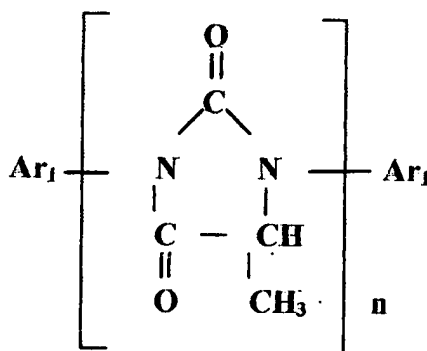


# CLAIMS

1. A process for obtaining polyglycolyl urea from aromatic diglycinates to insulate electric conductors, without forming HCN polluting residues, characterized because it consists of the following steps: in a reactor, under stirring and reflux conditions, reacting a mixture of methyl bromopropionate and methylenedianiline in a  $C_1 - C_4$  aliphatic solvent, at atmospheric pressure, up to solvent reflux temperature; adding a catalizer, preferably of triethylamine, at a rate of 0.178 l/hour per Kg of product during a reaction time of 3 to 4 hours and reflux till 19 hours; solvent separation through atmospheric distillation; crystallization at  $50^\circ C$ ; mother waters filtration and purification through washing with water and drying of the methyl diglycinate obtained; a load of methyl methyl diglycinate is prepared in a reactor and cresylic acid is added, at room temperature, under stirring, till solution is complete; methylene diisocyanate is added, under stirring, up to a temperature of  $60^\circ C$ , during 2 to 4 hours till a product viscosity of 44 to 47 seconds at  $25^\circ C$  is reached; addition of triethylenediamino or 1,4 diazobicyclo (2,2,2) octane; temperature increase up to  $180^\circ C$  during a 6-hour period; then distillation up to a temperature of  $200^\circ C$ ; cooling at  $70^\circ C$  and a polyglycolyl urea hydantoin resin of the following formula is obtained:



where  $Ar_1$  is a substituted aromatic compound or a substituted diphenylalkyl and  $2 < n < 500$  with a viscosity (Cp) = 4,800 at 15% solids.

2. The process for obtaining polyglycolyl urea according to claim 1, characterized because the  $C_1 - C_4$  solvent is preferably methanol.
3. The process according to claim 1, characterized because the reflux temperature of the  $C_1 - C_4$  aliphatic solvent is  $58 - 63^\circ C$ .
4. The process according to claim 1, characterized because the methyl methyl diglycinate obtained is dried with hot air at  $40^\circ C$  and in an obscure setting and corresponds to a stereoisomer mixture with a melting point of  $95 - 116^\circ C$ , of the following general formula:



5. The process for obtaining polyglycolyl urea according to claim 1, characterized because the residues of the mother waters are by-products of the reaction of triethylamine bromohydrate salts which are neutralized with sodium hydroxide and separated through secondary distillation obtaining sodium bromide in solution and 90% triethylamine.

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